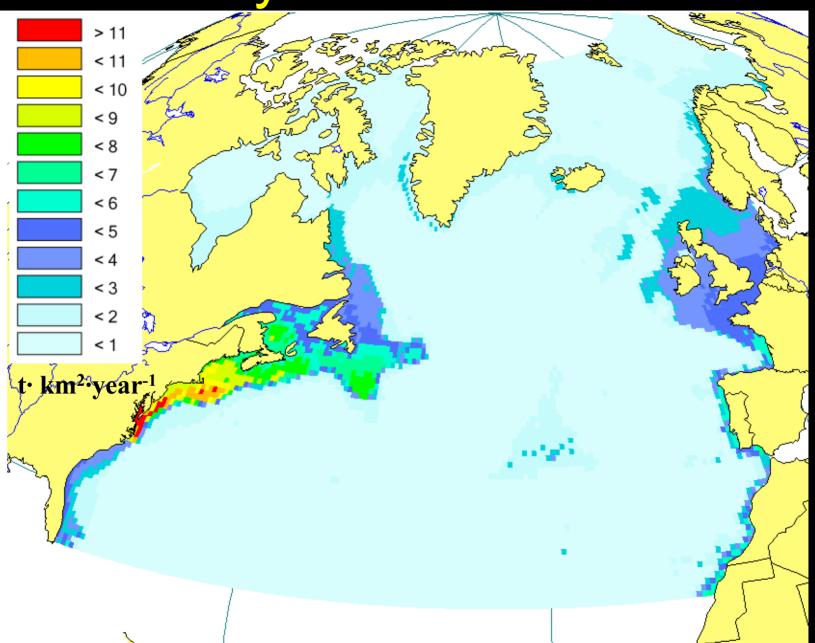
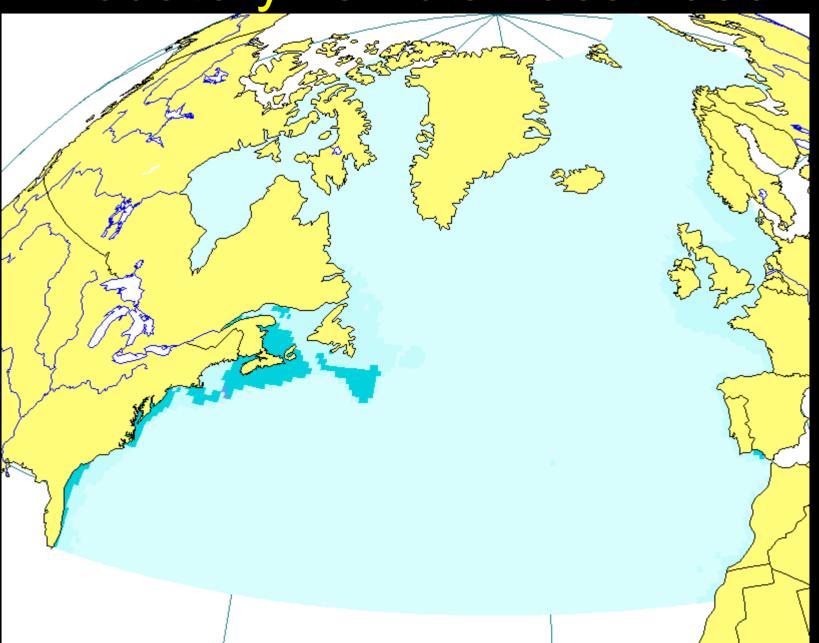
## Fish and Fisheries - SOS

Andrew A. Rosenberg
University of New Hampshire

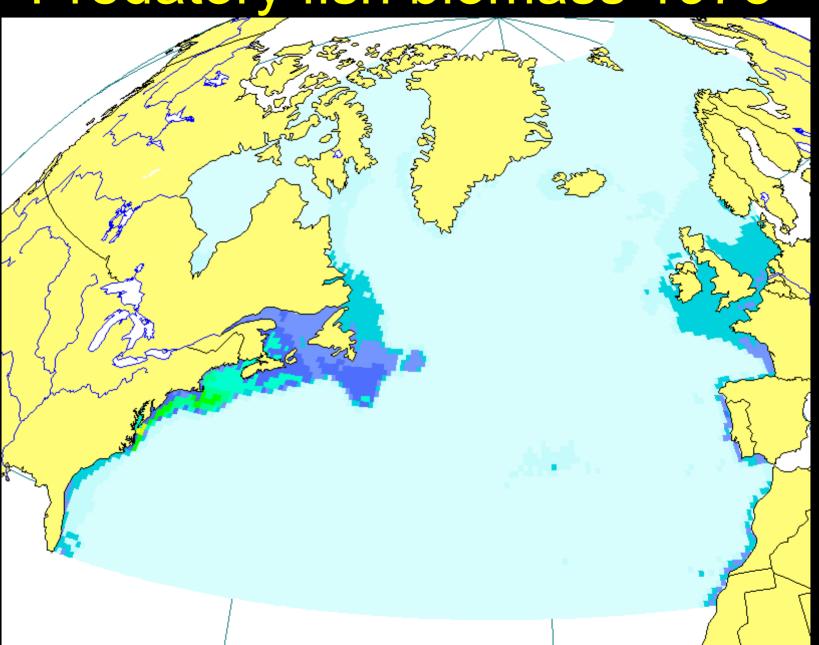
Predatory fish biomass 1950



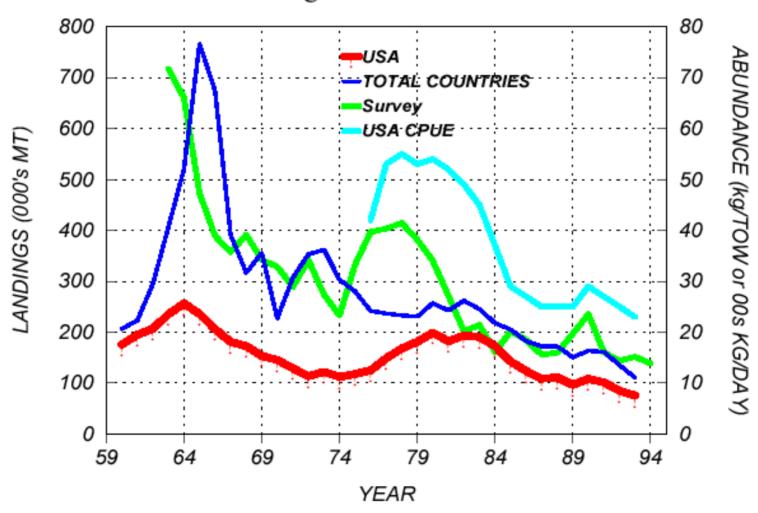
Predatory fish biomass 1999

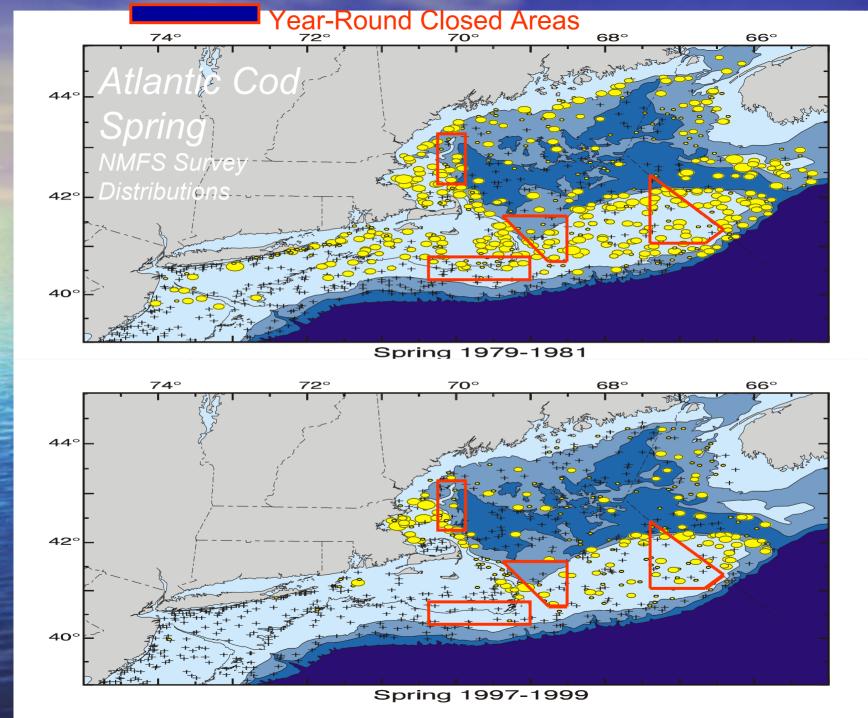


Predatory fish biomass 1975

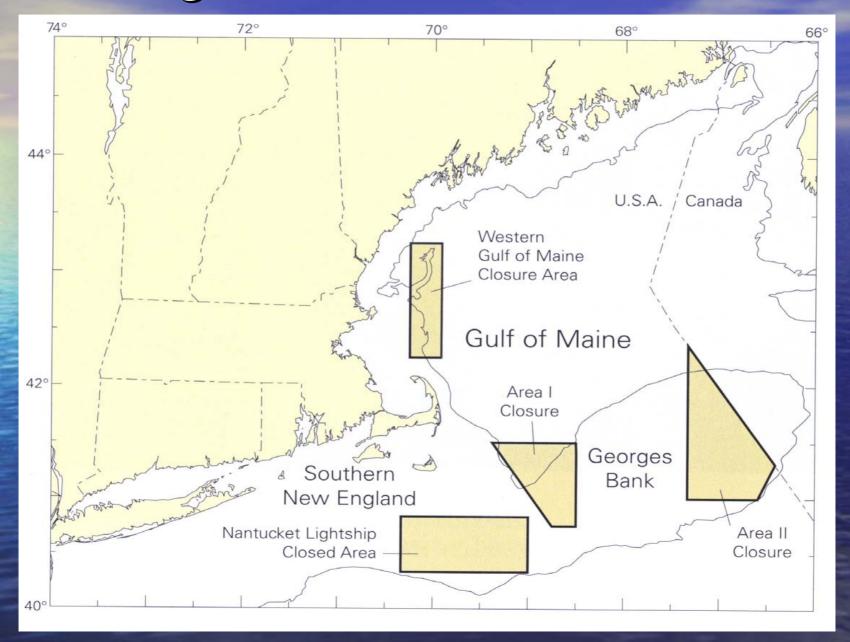


#### Groundfish Landings and Abundance 1960-1994

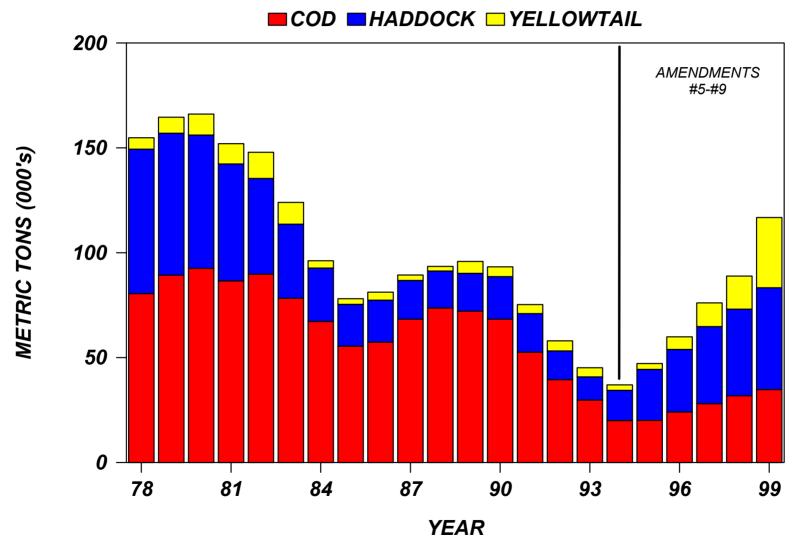




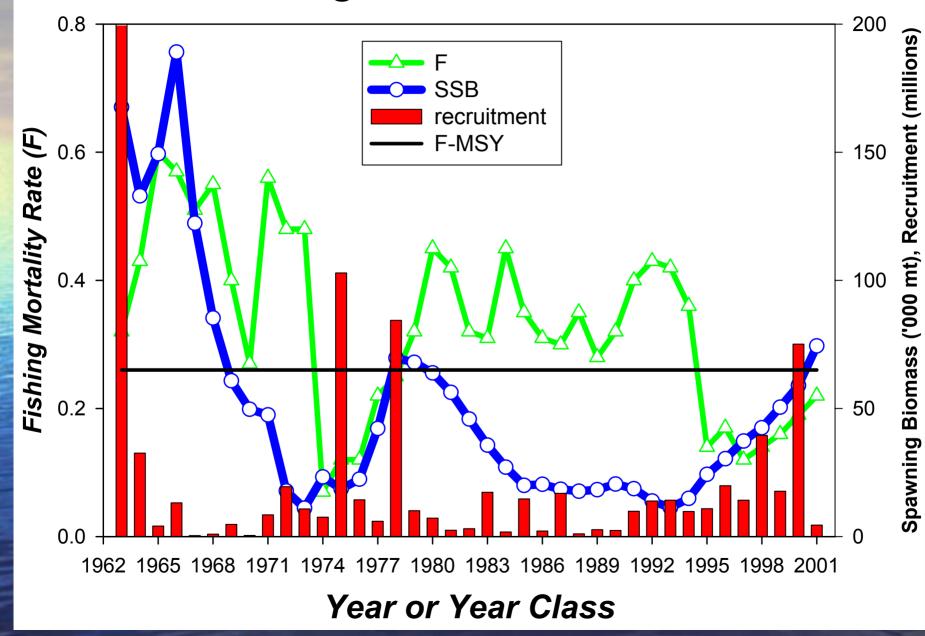
### New England Groundfish Closed Areas



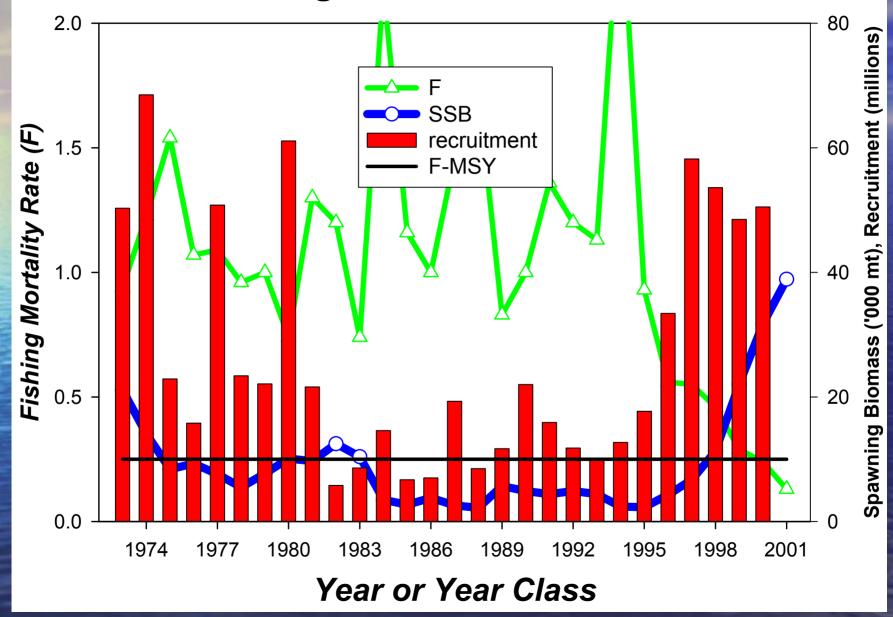
# Spawning Stock Biomasses - Georges Bank COD, HADDOCK and YELLOWTAIL



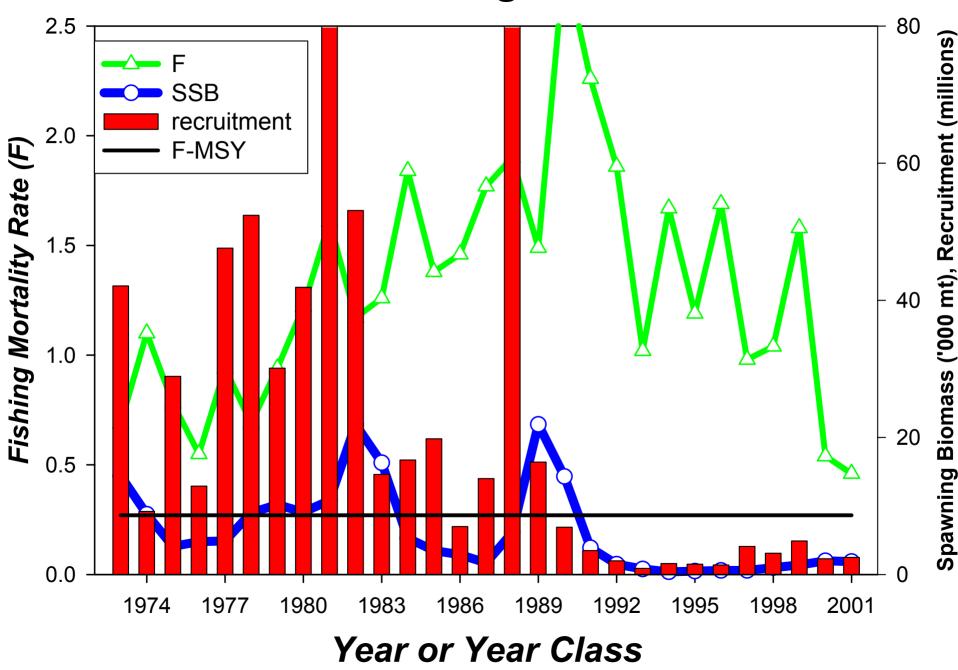
#### Georges Bank Haddock



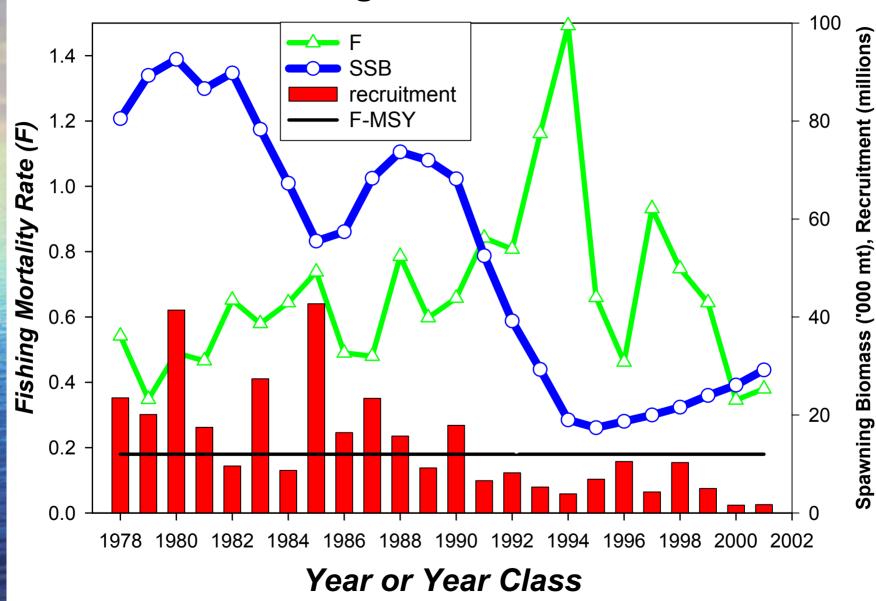
#### Georges Bank Yellowtail



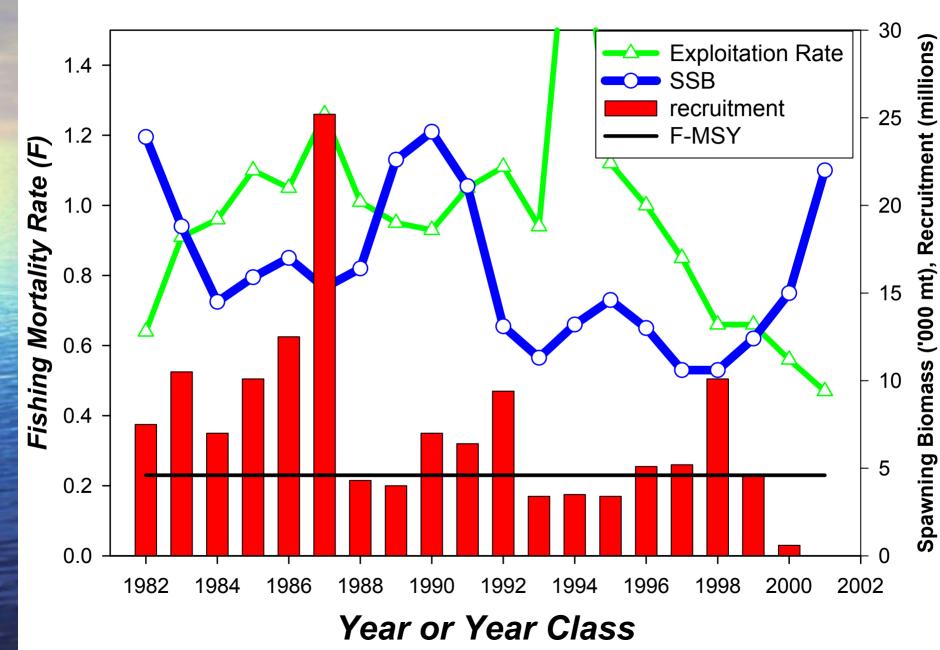
#### Southern New England Yellowtail



#### Georges Bank Cod

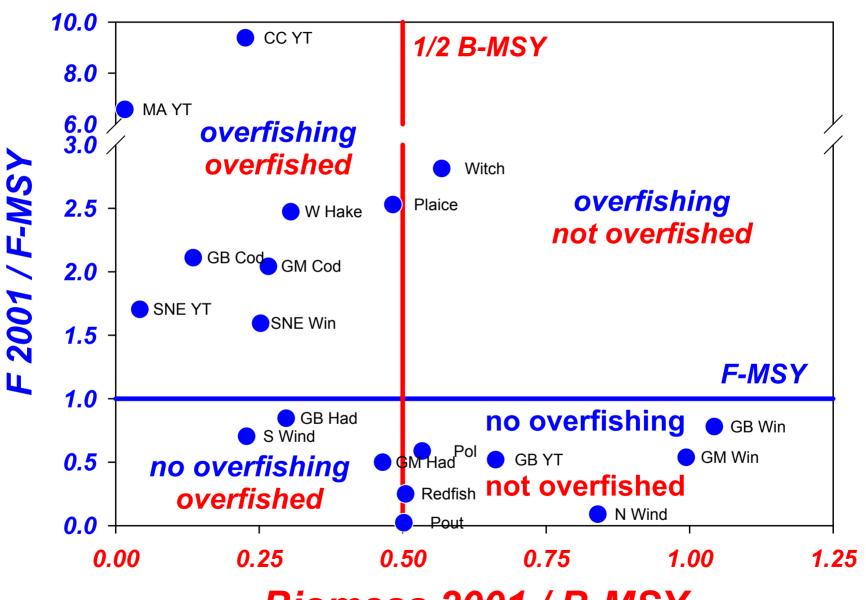


#### **Gulf of Maine Cod**

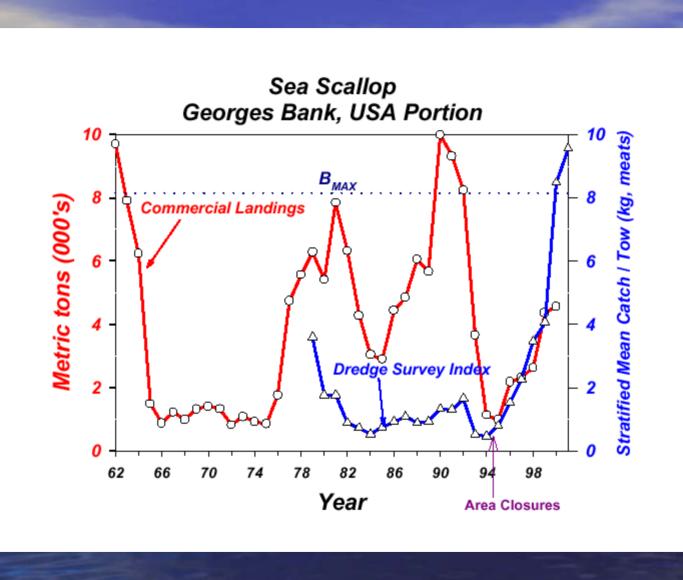


#### Current Year Stock Status - Status Determination 2.0 **B-MSY** overfishing overfishing 1.5 not overfished overfished /F-MSY 1.0 F-MSY L no overfishing no overfishing 0.5 overfished not overfished 0.0 0.00 0.25 0.50 0.75 1.00 Biomass / B-MSY

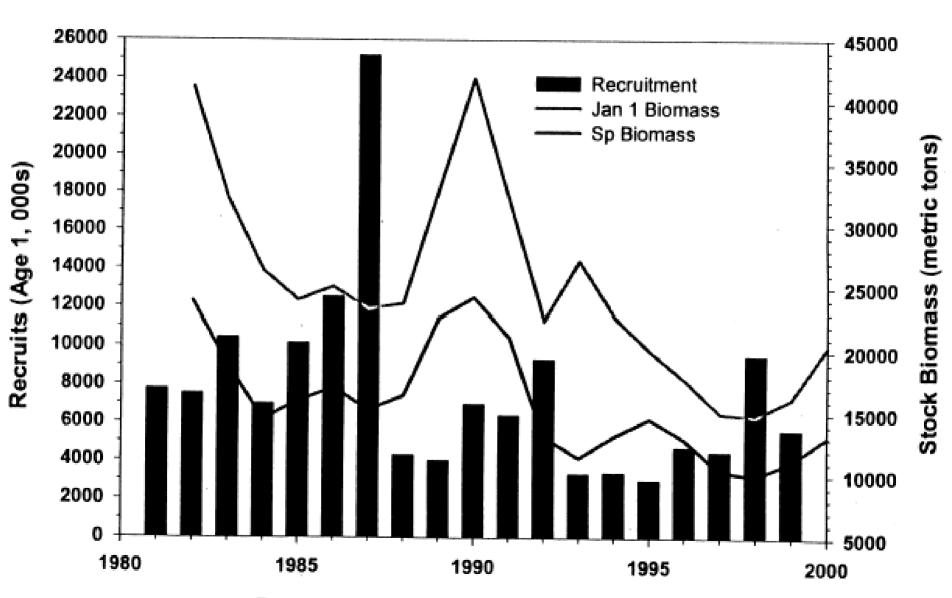
#### **Groundfish Stock Status - 2001**



Biomass 2001 / B-MSY

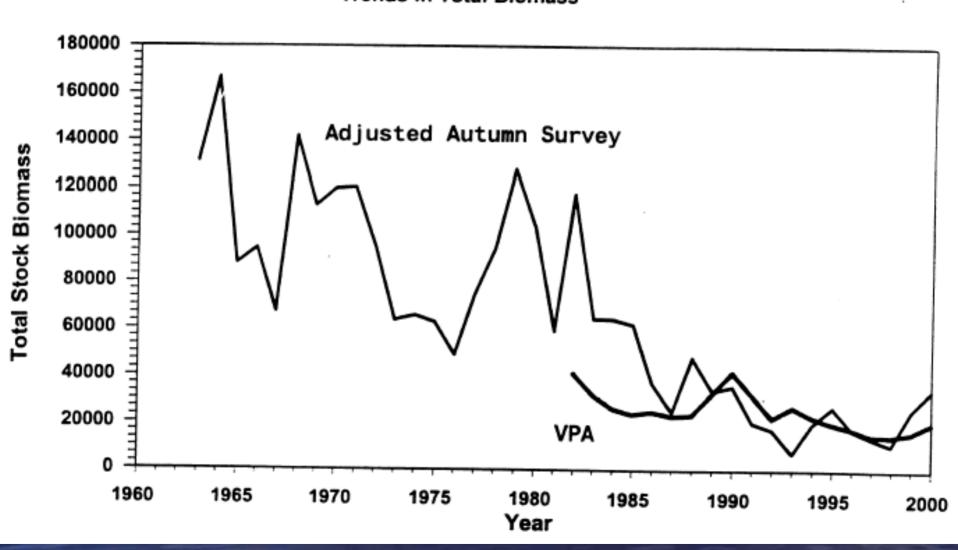


Gulf of Maine Cod
Trends in Recruitment and Biomass



Recruitment Year Class; Biomass Year

Gulf of Maine Cod Trends in Total Biomass



# There is more than just groundfish and scallops...

- Dogfish are in serious trouble and state action has made it worse
- Lobsters are at high risk and state inaction is a worry.
- Scup may be doing better under the state/federal plan
- Striped Bass doing well
- Bluefish probably in trouble...
- Fluke are doing well
- Black sea bass doing better
- Monkfish doing better
- Herring is stable though inshore landings are a worry

# Summary

- The lessons of overfishing seem to not be taken to heart, rather we fight the same battles again and again.
- Renewable resource management is a rare case where less really is more. Less fishing will yield more catch, more value and more food.
- BUT, with the current very high level of fishing power in the fleets we continue to serially fish down stock after stock.

- If you telescope in your view of fisheries then it is possible to find apparent progress in rebuilding overexploited fish populations
- BUT, if you expand the view in taxa, time and space, then the success is minor at best and illusory in general.
- The North Atlantic basin as a whole is massively overfished and in serious trouble
- There is little serious attempt in policy formulation to look at cumulative impacts of human activities on the marine ecosystem

- Without a major change in the structure of fisheries and management approach we can not reverse the decades of overexploitation for the North Atlantic as a whole.
  - Reduced fishing pressure
  - Reduced fleet size
  - Much greater habitat and ecosystem level protections